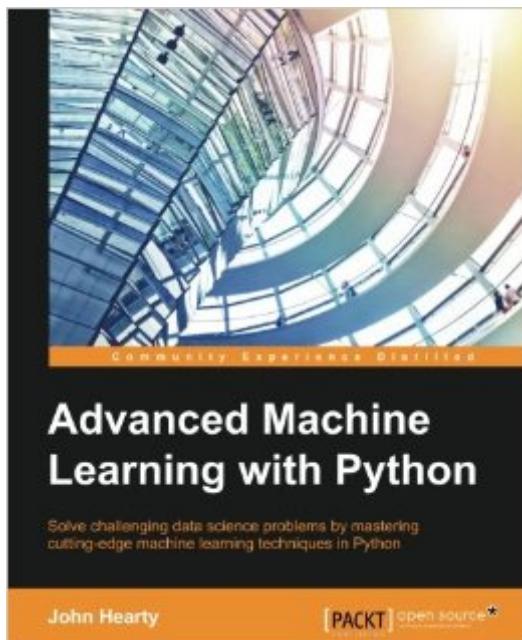


The book was found

Advanced Machine Learning With Python



Synopsis

Solve challenging data science problems by mastering cutting-edge machine learning techniques in Python

About This Book

Resolve complex machine learning problems and explore deep learning

Learn to use Python code for implementing a range of machine learning algorithms and techniques

A practical tutorial that tackles real-world computing problems through a rigorous and effective approach

Who This Book Is For

This title is for Python developers and analysts or data scientists who are looking to add to their existing skills by accessing some of the most powerful recent trends in data science. If you've ever considered building your own image or text-tagging solution, or of entering a Kaggle contest for instance, this book is for you!

Prior experience of Python and grounding in some of the core concepts of machine learning would be helpful.

What You Will Learn

- Compete with top data scientists by gaining a practical and theoretical understanding of cutting-edge deep learning algorithms
- Apply your new found skills to solve real problems, through clearly-explained code for every technique and test
- Automate large sets of complex data and overcome time-consuming practical challenges
- Improve the accuracy of models and your existing input data using powerful feature engineering techniques
- Use multiple learning techniques together to improve the consistency of results
- Understand the hidden structure of datasets using a range of unsupervised techniques
- Gain insight into how the experts solve challenging data problems with an effective, iterative, and validation-focused approach
- Improve the effectiveness of your deep learning models further by using powerful ensembling techniques to strap multiple models together

In Detail

Designed to take you on a guided tour of the most relevant and powerful machine learning techniques in use today by top data scientists, this book is just what you need to push your Python algorithms to maximum potential. Clear examples and detailed code samples demonstrate deep learning techniques, semi-supervised learning, and more - all whilst working with real-world applications that include image, music, text, and financial data.

The machine learning techniques covered in this book are at the forefront of commercial practice. They are applicable now for the first time in contexts such as image recognition, NLP and web search, computational creativity, and commercial/financial data modeling. Deep Learning algorithms and ensembles of models are in use by data scientists at top tech and digital companies, but the skills needed to apply them successfully, while in high demand, are still scarce.

This book is designed to take the reader on a guided tour of the most relevant and powerful machine learning techniques. Clear descriptions of how techniques work and detailed code examples demonstrate deep learning techniques, semi-supervised learning and more, in real world applications. We will also learn about NumPy and Theano.

By the end of this book, you will learn a set of advanced Machine Learning techniques and

acquire a broad set of powerful skills in the area of feature selection & feature engineering. Style and approach This book focuses on clarifying the theory and code behind complex algorithms to make them practical, useable, and well-understood. Each topic is described with real-world applications, providing both broad contextual coverage and detailed guidance.

Book Information

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Customer Reviews

A few words about myself: I am a Analyst, I have a MSc. in Mathematics and Statistics and do analytics for a living. While I have studied about neural networks and machine learning a while ago, only past year have I (re)-discovered the power of neural nets and Deep Learning. In my quest to improve my knowledge, I have taken many certificates in ML and have bought a few books about Machine Learning. Among these are:-Python Machine Learning by Sebastian Raschka (recommended)-Building Machine Learning Systems with Python by Luis Pedro Coelho and Willi Richert (nice to have for additional perspective) However, I wanted to go beyond what one can find in those two books. The topics I was specifically interested in were:-Deep Belief Networks (inc. Restricted Boltzmann Machine)-Autoencoders-Convolutional Neural Networks So where does Advanced Machine Learning rank among these? I must say, and that will be my main criticism of the book that it is not for the faint of heart. It is fast, sometimes too fast... I suppose there is so much you can put in 250 pages to explain about these topics, and it is easy to become lost. However, do not get me wrong. This book is a small gem in itself. Why? Because while I have found online many tutorials or courses about the topics I was interested, the book gives you additional information and

explanations that I haven't found anywhere else. How do you set your hyper-parameters in a CNN? What is the depth exactly representing, what are the current architectures, are they really all that good? Why? It is the difference between the how and the more precise what and why. Tutorials online are great but many people just do things without clearly showing why.

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